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ECONOMIC OUTLOOK

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EXPANSION TO CONTINUE, BUT POLICY RISKS ABOUND

by
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This month's issue of the ECONOMIC OUTLOOK is devoted to the Chamber's annual analysis of the prospects for U.S. industry. In keeping with recent concerns regarding the impact of foreign competition on U.S. industry, the industrial outlook details how some industries have met this challenge, and provides a forecast of industrial production, and employment for 1986.

Our expectations for the future of American industry, as well as the U.S. economy as a whole, are for a rebound in growth in 1986 and 1987 relative to this year's experience. The evidence for the third quarter—a rate of growth in real GNP of 3.3 percent on an annual basis—shows that the economy broke out of the plateau it had reached during the first half of the year and advanced at a modest rate.

In looking back on 1985, the most striking characteristic of the year was the damage wrought by the weakness in the nation's international trade position. Real net exports in 1985 are anticipated to show a $33 billion deficit ($91 billion in nominal terms) brought about by a 4.3 percent decline in exports and a 7.5 percent rise in imports. The other components of total gross national product are expected to post growth rates below those achieved in 1984. While this is to be expected, given that the recovery is already into its fourth year, the slowdown in the rate of growth of investment is particularly disappointing, although not entirely surprising given the uncertainty that has pervaded the fiscal policy process.

Consumer Spending: Car Sales and Housing

The third quarter surge in spending for automobiles, which contributed to a 20.6 percent increase in spending for consumer durables, will not be repeated during the year's last quarter. Domestic car sales, which averaged 9.4 million units during the third quarter, have already slowed significantly, averaging only 6.3 million units in October. We expect sales of domestic autos to average 7.2 million units in the final quarter, substantially below the 8.4 million rate of production which manufacturers have scheduled. As a result, real consumer spending during the fourth quarter should rise by only 2.2 percent compared to 5.2 percent in the first quarter and 4.8 percent in the two middle quarters of the year. However, despite what may, at first light, appear to be disturbing evidence stemming from the data on consumer indebtedness, we do not believe that a serious retrenchment in consumer spending is in the works.

A recent study by the Federal Reserve Bank of Kansas City notes that while household debt has risen rapidly during the current recovery, the ratios of liabilities to total assets and to total financial assets have remained fairly stable, implying that the net worth of households has risen (see Chart 1). Further, the ratio of liabilities to liquid assets does not show a significant increase in illiquidity. Although the ratio of debt to income continues to reach new highs, it exaggerates the burden of debt on American households for two main reasons. One is the increased substitution of credit cards for checks. Surveys show that as much as *half* of the users of bank credit cards pay their bills in full every month. Estimates place the overstatement on the debt/income ratio resulting from the convenience use of credit cards to be about one percentage point since 1977. Another factor which tends to place an upward bias on this ratio is the increase in the average maturity of consumer loans. Assuming that households consider monthly payments relative to income as the critical factor in determining how much they will borrow, longer maturities encourage higher levels of debt since they result in lower monthly payments.

IN THIS ISSUE

Expansion to Continue, but Policy Risks Abound.....p. 1
Forecast Table.....p. 4
Industrial Outlook.....p. 5
Trends in Commerce.....p. 18

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CHART 1

HOUSEHOLD NET WORTH

(billions of 1972 dollars)

Finally, demographic trends also come into consideration. The life-cycle theory of consumer behavior tells us that younger households tend to borrow heavily to purchase homes and other consumer durables. As the proportion of the population in the 25 to 44 age bracket rose to 30.4 percent in 1984 from 24 percent in 1970, so did household indebtedness.

Moreover, other indicators of consumer spending, such as employment growth and consumer confidence, continue to point in a positive direction. Total employment as measured by the household survey now stands at 108 million, having surpassed the previous cyclical peak of 100.7 million reached in July 1981 by 7.1 percent. The latest survey of consumer confidence shows that 88.9 percent of respondents expect the economy to remain strong. In view of these considerations, we expect real consumer spending to continue to boost the economy, rising by 4.2 percent this year and 3.6 percent in 1986.

The performance of the housing market during the past few months remains a puzzle. Since the beginning of this decade, housing starts have typically exceeded permits by an average of 7 percent. During September, however, starts stood 12 percent below the level of permits. Moreover, the departure from historical patterns is not restricted to a particular type of housing unit; it has occurred in all housing classes, single- as well as multi-family. At the same time, average mortgage commitment rates have fallen by 90 basis points between the first and third quarters of this year, and increases in new home prices have been quite modest. The lack of a significant increase in housing starts in the face of improved affordability and a high level of housing permits issued may be an indication that both home buyers and builders anticipate further slides in mortgage interest rates and will enter the market when that occurs. This month's forecast expects new housing starts to reach 1.75 million units during the first quarter of next year. As average mortgage rates slip below 11 percent, housing starts should average 1.86 million units by the first quarter of 1987.

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Foreign Sector

A steady decline in the rate of growth of imports has become evident as U.S. economic activity settles into a more moderate rate of growth and demand for imports subsides. However, the problem in the foreign trade sector remains the poor performance of real exports, which rose a meager 4.7 percent in 1984 and are expected to decline by 4.2 percent this year. The latest data corroborates the dismal performance of U.S. exports. The merchandise trade deficit reached a record high of $15.5 billion in September. Although the series is highly volatile on a month-to-month basis, and the quarterly data show that the third quarter deficit was actually 5 percent lower than the second quarter level, the merchandise trade deficit is expected to reach an astonishing $124 billion for the year as a whole. The extent of the problem is emphasized when net exports are excluded from overall GNP. Under this measure of domestic demand (GNP minus net exports), U.S. economic activity rose by 8.9 percent in 1984, compared to the 6.8 percent recorded increase, and is estimated to rise by 3.6 percent this year versus the 2.5 percent forecast.

While the dollar's appreciation since 1980 is only one of about half a dozen factors responsible for the trade deficit, most analysts agree that it has had a predominant influence. Inasmuch as we believe that the dollar will continue to slide in foreign exchange markets, as it has for most of this year, a turnaround in the trade deficit should become apparent during 1986. Thus, real exports are anticipated to rise by 7.3 percent in 1986 and 11.7 percent in 1987. U.S. merchandise exports, which will decline an estimated 0.9 percent this year, are expected to rebound in 1986, rising by 3.5 percent, largely on the strength of an 11 percent increase in exports of consumer goods and a 10.5 percent rise in exports of foods, feeds and beverages. Exports of automobiles are expected to rise by 6.5 percent, while exports of industrial supplies and materials increase by 3.1 percent. Import growth, on the other hand, is forecast to decelerate markedly. Merchandise imports, which are estimated to rise by 11 percent this year should decelerate to a 3.5 percent rate of increase next year. In particular, imports of capital goods, estimated to increase by 11 percent this year, should fall by almost 2 percent in 1986 (see Table 1).

TABLE 1

REAL EXPORTS AND IMPORTS (NIA Basis)
1984–1986

	Billions of 1972 Dollars			Percent Change	
	1984(a)	1985(e)	1986(f)	1985(e)	1986(f)
Exports of Goods and Services	146.0	139.8	149.9	-4.3%	7.2%
Mechandise	82.1	81.3	84.1	-0.9%	3.5%
Foods, Feeds & Beverages	13.5	11.5	12.7	-14.8	10.5
Industrial Supplies & Materials	21.3	21.3	22.0	0.1	3.1
Capital Goods except Autos	27.2	27.5	27.1	1.3	-1.5
Autos	6.6	7.2	7.7	9.4	6.5
Consumer Goods	6.8	6.5	7.2	-4.7	11.1
Other	6.7	7.2	7.4	8.2	2.1
Services	64.0	58.5	65.8	-8.5%	12.5%
Factor Income	41.2	36.3	41.8	-12.0	15.3
Other	22.8	22.2	24.0	-2.3	7.9
Imports of Goods and Services	161.1	173.1	179.3	7.5%	3.6%
Mechandise	115.9	128.9	133.5	11.2%	3.6%
Foods, Feeds & Beverages	8.7	9.4	8.4	7.5	-9.9
Industrial Supplies & Materials	28.9	29.5	29.8	2.2	1.0
Capital Goods except Autos	30.7	34.1	33.6	11.3	-1.5
Autos	17.6	20.6	21.8	16.8	6.1
Consumer Goods	26.6	31.1	36.1	16.9	15.9
Other	3.4	4.2	3.8	22.7	-10.5
Services	45.1	44.3	45.8	-1.9%	3.5%
Factor Income	21.6	19.5	20.5	-9.5	5.0
Other	23.5	24.7	25.3	5.1	2.2

(a) Actual
(e) Estimate
(f) Forecast
Source: U.S. Chamber of Commerce, Forecast Section, using the DRI macro model.

The Investment Environment

Businesses invest to expand capacity, reduce costs, or produce new products. But with the capacity utilization rate in the manufacturing sector hovering at 80 percent, expansion of productive capacity would hardly seem a top priority. Even still, the nation's manufacturing capacity rose by 0.8 percent in the third quarter of this year, an increase of 2.4 percent over the previous year. Enhanced competitiveness and cost reduction are, however, a different matter. In spite of the improvement in American businesses' ability to compete internationally as a consequence of the decline in the value of the dollar, U.S. producers still need to increase efficiency and productivity in order to regain their previous dominance in world trade. In spite of the fact that consumer spending is anticipated to begin easing toward the end of next year, investment in producers' durable equipment should begin to pick up by the middle of next year as exports of goods and services surge.

The Inflation Outlook

The inflation trend remains one of moderate, but rising prices. The overall price level, as measured by the GNP deflator, is anticipated to rise by 3.7 percent this year, comparable to 1984's 3.8 percent increase, and decelerate to a 2.8 percent rate of growth in 1986 before rising in 1987. Major collective bargaining contracts signed in the first three quarters of this year showed the smallest average wage increases in the series' 23 years. However, while wages for most sectors have registered increases *below* 3 percent, pay increases in the manufacturing sector have been running slightly *above* 3 percent in 1984 and 1985. Overall, however, the inflationary pressure stemming from labor costs remains moderate. In addition to moderate wage increases, weak capital costs, low capacity utilization rates, modest food price increases, and declining energy prices will continue to place downward pressure on prices.

On the negative side, however, are two factors, which while not entirely overwhelming the influence of those mentioned above, will begin to exert an upward influence on domestic inflation. On the one hand is the rapid acceleration in the money supply which should soon translate into rising inflation. The second influence is the slide in the value of the U.S. dollar. Whereas the optimistic view on the impact of the dollar's decline on domestic inflation holds that, for both domestic and foreign producers, market shares will be an overriding consideration compared to maintaining profit margins, there is some evidence that this may not turn out the be case after all. This view holds that domestic and foreign producers will not increase prices substantially in response to the relative price shifts induced by the dollar's decline, as the former attempt to regain market shares, and the latter opt for sacrificing profit margins in an effort to maintain market shares. This may not be the outcome, however, particularly in the case of Japanese producers since the yen has already reached a five year high with respect to the dollar. For instance, the Sony Corporation has already announced price increases in the 5 to 7 percent range effective next year. More increases should follow as the dollar continues to fall.

The impact of the dollar's depreciation on domestic inflation is evidenced in the near term discrepancy between inflation as measured by the Consumer Price Index (CPI) and the implicit deflator for GNP. The CPI is anticipted to begin accelerating next year and average a 3.4 percent rate of increase in 1986 and 4.1 percent in 1987. The GNP deflator, on the other hand, should rise by only 2.8 percent and 3.7 percent, respectively. The explanation for this divergence lies in the fact that the CPI includes the cost of imported consumer goods, while the GNP deflator does not.

Risks to the Outlook

As has been the case for most of this year, the major risks to our scenario for continued expansion stem from

TABLE I
UNITED STATES ECONOMIC OUTLOOK 1984-1987
Prepared by the U.S. Chamber of Commerce
Percent change from previous period at a seasonally adjusted annual rate

	QUARTERS									YEARS			
	Actual			Forecast						Actual	Forecast		
GROSS NATIONAL PRODUCT	85:1	85:2	85:3	85:4	86:1	86:2	86:3	86:4	87:1	1984	1985	1986	1987
Real GNP	0.3	1.9	3.3	3.9	3.3	4.4	4.3	4.1	3.7	6.8	2.5	3.7	3.9
Consumption	5.2	4.8	4.8	2.4	4.0	3.7	3.3	2.2	2.4	5.3	4.2	3.6	2.7
Residential Investment	5.5	6.1	10.9	-1.5	6.5	9.8	9.3	6.8	2.6	12.2	2.1	6.5	3.2
Business Fixed Investment	-1.5	14.4	-4.6	0.7	4.3	5.0	7.2	6.6	4.6	19.8	6.0	3.7	6.0
Equipment	-5.6	16.6	-3.5	0.2	4.1	5.3	8.8	7.9	5.3	21.5	5.4	4.1	6.7
Structures	9.5	9.2	-7.7	2.3	5.1	4.3	3.0	3.2	2.7	15.6	7.7	2.6	4.2
Exports	-8.9	-15.2	0.6	4.1	8.0	12.1	17.9	17.3	7.7	4.7	-4.3	7.2	11.9
Real Net Exports (72$B)	-28.4	-33.8	-34.0	-37.0	-35.5	-32.7	-27.7	-21.5	-18.3	-15.0	-33.3	-29.4	-11.6
Imports	32.2	-0.7	0.7	10.6	2.8	3.1	2.5	0.1	-0.4	27.0	7.5	3.6	0.1
Government Purchases	0.6	-0.3	33.4	-11.3	-13.4	-1.6	-1.3	1.3	1.6	3.5	9.0	-2.6	1.2
Real Final Sales	-0.3	4.6	5.9	0.1	2.8	4.1	4.6	4.2	3.2	5.0	3.5	3.3	3.9
Industrial Production	2.1	1.3	1.2	2.5	2.5	4.0	5.9	3.3	3.2	10.6	2.2	3.0	4.3
Change in Business Inventories (72$B)	19.1	8.3	-2.1	13.8	16.3	17.5	16.3	16.4	18.6	24.8	9.8	16.6	16.9
New Car Sales (total, mill.)	11.3	11.5	12.5	10.6	10.9	11.5	12.0	11.5	11.6	10.5	11.2	11.5	11.6
New Domestic Car Sales (mill.)	8.5	8.2	9.4	7.2	8.0	8.2	8.5	7.9	7.9	8.0	8.3	8.2	7.8
New Housing Starts (total, mill.)	1.8	1.8	1.7	1.7	1.7	1.8	1.9	1.9	1.9	1.8	1.7	1.8	1.9
EMPLOYMENT, WAGES AND PRICES													
Civilian Unemployment Rate (%)	7.3	7.3	7.1	7.1	7.1	7.0	6.9	6.7	6.7	7.5	7.2	6.9	6.6
Compensation	5.0	3.3	1.8	3.4	4.3	4.3	4.5	4.8	5.3	4.2	3.7	3.8	4.9
Productivity	-3.3	1.1	1.1	1.4	1.4	1.2	1.7	1.1	-0.2	2.7	0.2	1.3	1.2
Unit Labor Costs	8.5	2.2	0.5	2.1	2.8	3.1	2.7	3.7	5.4	1.4	3.4	2.5	3.7
Consumer Price Index	3.3	4.2	2.4	2.8	3.5	3.9	3.3	4.2	4.2	4.3	3.4	3.4	4.1
Implicit GNP Deflator	5.4	2.6	3.3	3.2	2.6	2.4	2.8	3.3	4.5	3.8	3.7	2.8	3.7
Prime Interest Rate (%)	10.5	10.2	9.5	9.5	9.4	9.1	8.9	8.8	8.4	12.0	9.9	9.0	8.9
3-mos. Treasury Bill Rate (%)	8.2	7.5	7.1	7.2	7.0	6.5	6.2	6.0	5.7	9.5	7.5	6.4	6.2
Corporate Bond Rate (%)	12.3	11.6	11.0	11.0	10.7	10.4	10.1	9.8	9.5	12.7	11.5	10.2	9.5
Real Personal Disposable Income	-1.6	8.2	-4.1	3.1	3.0	3.4	3.2	2.5	4.9	6.7	2.3	2.5	3.3
Profits from Current Production ($B)[1]	207.0	214.9	224.0	227.1	221.5	221.7	225.3	222.7	214.0	195.9	217.5	222.8	218.8
GOVERNMENT FISCAL POLICY ($B)[2]													
Unified Receipts										666	733	790	860
Unified Outlays										842	933	980	1045
Unified Deficit										-176	-200	-190	-185

[1]After-tax corporate profits with inventory valuation and capital consumption adjustments.
[2]Unified budget figures on a fiscal year basis. 1985 data are actuals.

SOURCE: U.S. Chamber of Commerce, Forecasting Section, using the Data Resources, Inc. model of the U.S. economy.

FORECAST ASSUMPTIONS

This month's forecast contains the Commerce Department's revision to the National Income and Product Accounts for the third quarter of 1985. It continues to take into account all the provisions of previously enacted legislation, including indexation of personal income tax rates. Congress is assumed to enact a deficit reduction package which results in a static reduction in federal government outlays of $36 billion in 1986 and $64 billion in 1987. The nation's money supply, as measured by M(1), rises by almost 9 percent in 1985, 8 percent in 1986 and 7 percent in 1987. The federal minimum wage remains at $3.35 per hour throughout the forecast interval. The price of a barrel of imported crude oil averages $25 in 1986 and $24 in 1987 compared to $28.9 in 1984. The trade-weighted exchange value of the dollar rises 3.3 percent this year on a year-over-year basis. During 1986 and 1987, it falls by 19 percent and 7 percent, respectively.

fiscal policy considerations. In particular, the tax reform process, which is becoming increasingly hostile to capital formation, has increased business uncertainty and affected investment decisions. A recent survey of a cross-section of the Chamber's medium and large business member shows that 41 percent of those queried have changed their investment plans as a result of the uncertainty caused by the pending tax reform bill.

Past issues of ECONOMIC OUTLOOK have detailed the likely impact of tax reform on the nation's economy, particularly with respect to its effect on capital costs and business investment. As it now stands, the latest version of the tax reform bill, the House Ways and Means Committee's staff options, will worsen the competitive position of U.S. exports by sharply increasing domestic capital costs and reducing U.S. investment and productivity growth. This will partially offset the improvements in U.S. competitiveness stemming from the dollar's depreciation. Estimates place the decline in real exports resulting from the House Ways and Means proposal at a cumulative $13 billion between 1986 and 1990 from what would otherwise occur.

To the threat of tax reform must be added the increasing pressures for protectionist legislation by various American industries. There are now approximately 300 pieces of legislation before the Congress, all of which would, in one way or another, effectively close U.S. markets to foreign goods. Econometric studies of general types of protectionist measures, such as an import surcharge, show that such legislation would have no long-term impact on the current account deficit. Such a move would, however, likely result in a serious inflationary shock as the price of both domestically produced and imported goods rise. For instance, estimates place the average increase in the price of automobiles resulting from the voluntary restraints on car imports, at $1,400 for imported cars and $600 for domestic autos. Protectionist pressures should be steadfastly resisted, particularly in light of the fact that the continued decline in the dollar's value, along with further real rates of economic growth among America's trading partners, will go a long way toward correcting the nation's trade imbalance.

INDUSTRIAL OUTLOOK

by
Rajni Bonnie Ohri and Graciela Testa-Ortiz

U.S. industry has embarked on a process of adjustment to rapidly changing global economic conditions. This process of industrial restructuring is accompanied by a host of social and economic problems brought about by the shedding or shrinking of employment and output in older, more mature industries, and increases in newer, more dynamic sectors. This process is by no means a negative development, on the contrary, it is a sign of economic strength. An economy that can adjust successfully to changing technology, consumer tastes, and global economic conditions is a healthy, growing economy whose industries can compete effectively both at home and abroad.

Since the beginning of the decade, manufacturing output has risen at an average annual rate of 3.1 percent (see Tables 1 and 2). However, despite this overall improvement, the industry detail paints a very grim picture as a large number of industries have stagnated or suffered declines in output. This performance results from the fact that the data includes the twin recessions of 1980 and 1982. Since it was the recessions which prompted many of the adjustments now underway, these data do not accurately portray the strengths and weaknesses of American industries. The second column in Tables 1 and 2, showing industrial production growth since the end of the 1982 recession, gives a better indication of recent industrial performance. From it we can isolate and explain the factors affecting industrial activity.

TABLE 1
THE PERFORMANCE OF AMERICA'S INDUSTRIES
Market Groups
(average annual growth rates)

	1980-1985	1982-1985
Total Industry	2.7%	6.7%
Total Products	3.3	6.8
Final Products	3.1	6.3
Consumer Goods	2.6	5.1
Business Equipment	1.8	6.5
Farm Equipment	-10.4	-8.7
Defense & Space Equipment	10.3	12.0
Intermediate Products	3.8	8.7
Materials	1.8	6.7

Source: U.S. Chamber of Commerce, Forecasting Section using the DRI macro model.

The factors shaping the character of American industry are several and vary from industry to industry. For instance, many of the industries which enjoyed above average increases in output benefited from improvements in the housing and automobile markets, major sources of demand for sectors such as lumber, furniture and fixtures, stone, clay and glass, fabricated metals, and rubber and plastics. At the other extreme, some of the industries which suffered weak output growth or continued declines in production despite the recovery, face problems unique to their sectors. The farm equipment and agricultural chemicals sectors have felt the full impact of the problems facing American agriculture. Petroleum products, and oil and gas extraction have suffered from the slide in the world price of oil, declining demand for this source of energy, and oversupply of petroleum. The decline in the

fortunes of the tobacco industry is related to a shift in demand due to changed consumer tastes and health concerns.

TABLE 2

THE PERFORMANCE OF AMERICA'S INDUSTRIES
Manufacturing Sector
(average annual growth rates)

	1980–1985	1982–1985
All Manufacturing	3.1%	7.7%
Nondurable Manufacturing	2.8	5.9
Food & Products	2.6	4.0
Tobacco	-1.7	-2.3
Textile Mill Products	-0.5	2.9
Apparel	0.0	5.5
Paper & Products	3.4	5.7
Printing & Publishing	5.8	8.3
Chemicals & Products	3.0	7.1
Agricultural Chemicals	-1.7	0.4
Basic Chemicals	0.2	6.7
Synthetic Materials	6.4	13.3
Drugs & Medicines	4.3	3.9
Soaps & Toiletries	4.0	6.5
Petroleum Products	-1.8	-0.2
Rubber & Products	6.4	10.8
Tires	6.8	5.6
Other Rubber Products	2.0	6.6
Plastics Products	7.3	12.5
Leather & Products	-4.0	-2.7
Durables	3.3	9.2
Lumber	5.7	12.1
Furniture & Fixtures	6.6	10.3
Household Furniture	4.6	8.0
Stone, Clay & Glass	2.6	10.0
Glass & Glass Products	0.1	3.4
Cement & Structural Clay	2.9	14.1
Primary Metals	-2.0	7.4
Basic Steel Products	-3.2	9.1
Iron & Steel	-3.6	7.8
Nonferrous Metals	0.5	7.5
Fabricated Metal Products	1.7	8.8
Metal Cans	-1.3	1.8
Nonelectrical Machinery	3.0	8.6
Engines & Turbines	-2.6	2.2
Engines & Farm Equipment	-6.1	-2.2
Construction Equipment	-1.7	5.1
Metalworking Machinery	0.5	7.4
Industrial Equipment	0.4	8.3
Office Equipment	10.0	12.8
Electrical Machinery	4.7	8.7
Major Electrical Equipment	-3.1	0.8
Household Appliances	3.0	10.4
Television & Radio Sets	-0.2	4.6
Communication Equipment	9.0	11.5
Electronic Components	7.0	10.7
Transportation Equipment	5.5	13.8
Motor Vehicles & Trailers	9.5	19.8
Autos	8.6	23.1
Motor Vehicle Parts	7.1	14.3
Trucks, Buses & Trailers	20.6	30.5
Aircraft & Parts	1.9	6.1
Railroad Equipment	-15.1	-0.5
Instruments	0.9	3.5
Equipment Instruments	2.8	5.8
Consumer Instruments	-1.2	0.8
Miscellaneous Manufactuers	0.2	3.1

Source: U.S. Chamber of Commerce, Forecasting Section using the DRI macro model.

However, excluding these factors, two major changes in the economic environment have had a significant impact on industry performance. These are: (1) the impact of innovation and new technologies in industrial processes which has resulted in a shift away from mechanical industries and metal-based materials towards microelectronics and synthetics, respectively; and (2) increased competition from foreign producers in domestic markets. These two developments account for the performance of some sectors whose recovery experience cannot be entirely explained by the effects of the cyclical upturn or industry-specific developments.

Apart from the industries already mentioned, other sectors (including electronic components, communications equipment, office and computing machines, and plastics), have experienced dramatic improvements. In contrast, industries such as leather products, engines and turbines, glass products, metal cans, and television and radio sets, have remained weak or experienced declines in manufacturing output. The first group of industries has benefited directly from the shifts resulting from innovation and improved technology. For instance, plastic containers are being increasingly substituted for glass and metal containers in packaging. The sharp rise in foreign competition, accounts for the dismal performance of sectors such as leather and television and radio sets, where 1984 import penetration ratios are 47 percent and 59 percent, respectively.

For the economy as a whole, real imports as a share of domestic goods purchased have increased from 11.5 percent in 1980 to 15 percent in 1985. Table 3 shows the import penetration ratios in the nation's manufacturing industries. For broad categories of the nondurables goods industries (i.e., two digit SIC classification), the market share of imports accounts for less than 10 percent in every industry with the exception of apparel and leather. Broad categories of durable goods producers (two digit SIC codes), face a higher level of competition than their counterparts in the nondurable sector, however, with the exception of miscellaneous manufacturing, the share of imports in domestic markets is less than 20 percent. percent.

Comparing Tables 1, 2 and 3, it is interesting to note that there is no discernible pattern between the extent of import penetration and the performance of domestic output. Some industries have enjoyed significant improvements in output, while others have done quite poorly. For instance, the U.S. apparel industry, where imports comprise 25 percent of the domestic market, enjoyed an average annual increase in output of 5.5 percent, slightly above the rate of growth in output of the consumer goods sector as a whole. On the other hand, the instruments industry with an import penetration ratio of 14 percent saw output increase by only 3.5 percent.

TABLE 3

U.S. IMPORT PENETRATION*
(percent)

INDUSTRY	1981	1984
Nondurables		
Food & Products	4.2%	4.0%
Tobacco	2.0	0.5
Textile Mill Products	6.0	7.0
Apparel	13.7	25.0
Paper & Products	6.4	8.5
Printing & Publishing	1.0	1.0
Chemicals & Products	4.4	6.9
Basic Chemicals	21.0	21.0
Petroleum Products	6.8	9.9
Rubber & Products	7.7	9.0
Leather & Products	24.7	47.0
Leather Shoes	33.0	51.0
Luggage & Personal Goods	38.7(a)	52.4
Durables		
Lumber & Wood Products	5.7	8.0
Wood Furniture	4.8	7.0
Stone, Clay, Glass	5.1	7.3
Nonferrous Metals	14.5	16.0
Fabricated Metals	3.9	5.0
Steel Mill Products	19.0	22.0
Nonelectrical Machinery	8.0	14.0
Machine Tools	27.0	31.0
Foundry Equipment	8.4(a)	17.2
Construction Machinery	9.0	12.0
Paper Industries Machinery	15.0(a)	17.0
Farm Machinery	13.0	17.0
Textile Machinery	39.3(a)	45.7
Oil Field Machinery	4.0	1.0
Compressors	9.0	12.0
Pumps	9.0	7.0
Internal Combustion Engines	6.0	5.0
Computers	7.0	19.0
Electrical Machinery	12.4	18.0
Transformers	6.0	10.0
Motors & Generators	10.0	13.0
Semiconductors	34.0	39.0
Radios & T.V. Sets	59.0	59.0
Household Appliances	9.0	13.0
Transportation Equipment	14.8	17.0
Motor Vehicles	19.0	16.0
Passenger Car Units	27.0	25.0
Civilian Aircraft	22.0	29.0
Other Aircraft Equipment	18.0	20.0
Instruments	11.3	14.0
Engineering & Optical Inst.	19.0	16.0
Measuring & Control Inst.	5.2	5.0
Electricity Measuring Inst.	12.0	11.0
Miscellaneous Manufactures	23.6	27.0

*Imports as a share of apparent consumption.
(a) Indicates 1982 data
Source: U.S. Chamber of Commerce

Although most major categories of American industries face import penetration ratios of 20 percent or less, a majority of them have experienced an increase in the proportion of domestic demand satisfied by foreign producers. Moreover, in important categories within the broad industry classifications, imports account for a major share of the domestic market. For instance, the ratio of imports in the machine tools industry is 31 percent, even though for the nonelectrical machinery industry as a whole, it only reaches 14 percent. At the same time, however, two industries in which foreign producers have made significant inroads into domestic markets – basic chemicals, and television and radio sets – have not experienced further increases in the import penetration ratio since 1981.

The remainder of this article will discuss how particular U.S. industries have faced these challenges and present our forecast for employment and output in 1986.

Industrial Production and Employment

The outlook for U.S. industrial production and employment is for a resumption in growth following the lull in activity during the first half of this year. Following the explosive 10.5 percent increase in total industrial production during 1984, this indicator of industrial health is estimated to post only a 2.2 percent increase this year, rebounding modestly in 1986 to 3 percent (see Tables 4 and 5).

TABLE 4

INDUSTRIAL PRODUCTION BY INDUSTRY
Market Groups
1984–1986
(rates of growth)

	1984(a)	1985(e)	1985(f)
Total Industry	10.5%	2.2%	3.0%
Total Products	10.6	3.6	3.1
Final Products	10.6	3.3	3.3
Consumer Goods	6.5	1.8	2.6
Business Equipment	17.3	4.8	1.8
Farm Equipment	2.8	-17.2	-1.9
Defense & Space Equipment	13.1	9.7	8.2
Intermediate Products	10.7	4.3	2.7
Materials	10.7	.0	2.9

(a) Actual
(b) Estimate
(f) Forecast
Source: U.S. Chamber of Commerce, Forecasting Section, using DRI macro model of the U.S. economy.

By market groupings, the strongest performer this year and next is expected to be the defense and space equipment sector. Production of business equipment will rank second in 1985, but by 1986 it will lose its position to consumer goods production. Not surprisingly, the weakest sector is farm equipment where industrial production will fall by 17 percent this year and continue to slide in 1986. There will be no recovery in this sector until American agriculture recovers.

By industry group, both nondurable and durable manufacturing will show increases in industrial output higher than the total for all U.S. industry in 1985, with the durable sector performing slightly better than nondurables. Within durable manufacturing, the output of

TABLE 5

INDUSTRIAL PRODUCTION BY INDUSTRY
Industry Groups
1984–1986
(rates of growth)

	1984(a)	1985(e)	1985(f)
Manufacturing	11.3%	2.5%	3.2%
Primary Processing Industries	9.3	2.1	5.4
Advanced Processing Industries	12.6	2.7	2.1
Nondurables	6.8	2.4	4.9
Food & Products	4.6	3.4	4.3
Tobacco	1.8	-4.3	1.2
Textiles	-2.0	-2.0	6.1
Apparel	8.8	-1.8	0.4
Paper & Products	7.3	0.2	3.2
Printing & Publishing	12.7	4.9	5.4
Chemicals & Products	6.1	4.4	6.4
Basic Chemicals	6.1	1.7	6.4
Synthetic Materials	9.9	6.9	10.3
Agricultural Chemicals	12.1	-4.6	-6.3
Petroleum Products	1.4	-0.8	2.9
Rubber & Products	12.9	2.3	6.1
Tires	11.2	-5.1	4.0
Leather & Products	-3.8	-6.1	-7.5
Durables	15.2	2.6	2.0
Lumber	8.2	3.5	5.3
Furniture & Fixtures	13.0	3.4	1.1
Stone, Clay & Glass	13.4	2.8	3.3
Glass & Products	8.0	-0.4	2.5
Cement & Structural Clay	15.0	6.9	0.7
Primary Metals	10.1	-2.5	7.1
Basic Steel & Mill Products	12.3	-3.9	7.5
Iron & Steel	11.0	-4.8	7.5
Nonferrous Metals	10.8	0.3	6.0
Fabricated Metal Products	14.5	5.5	4.2
Nonelectrical Machinery	20.3	3.4	1.1
Construction & Allied Equip.	28.6	7.5	1.3
Metalworking Machinery	22.6	3.9	0.4
General Industrial Equipment	20.1	1.2	-0.9
Office & Misc. Equipment	21.4	4.6	2.4
Electrical Machinery	18.4	-2.8	-3.1
Major Elect. Equipment & Parts	12.5	-8.7	1.6
Electronic Components	29.1	-10.5	-7.9
Household Appliances	15.9	-1.5	-2.9
Communication Equipment	16.3	8.7	1.4
Television & Radio Sets	18.3	-16.5	-27.6
Transportation Equipment	16.1	8.4	4.3
Autos	12.9	9.8	2.0
Motor Vehicle Parts	18.5	3.2	1.5
Trucks, Buses & Truck Trailers	37.2	9.7	9.2
Aircraft and Parts	7.9	11.6	9.5
Railroad Equipment	83.2	8.6	28.5
Instruments	9.6	2.8	2.3
Equipment Instruments & Parts	11.1	2.9	2.0
Consumer Instruments	9.0	2.5	2.6
Miscellaneous Manufactuers	3.6	-0.7	2.1
Utilities	3.6	2.4	1.3
Mining	7.6	-1.5	-0.5
Mining except Oil & Gas	14.3	-0.7	1.3
Oil & Gas Extraction	4.6	-1.9	-1.3

(a) Actual (b) Estimate (f) Forecast
Source: U.S. Chamber of Commerce, Forecasting Section, using DRI macro model of the U.S. economy.

transportation equipment will increase an impressive 8.4 percent in 1985 on the strength of automobile production. Next year, however, the nondurable manufacturing sector is expected to take the lead rising by 4.9 percent compared to a 3.2 percent projected increase for manufacturing as a whole, and a lackluster 2 percent rise in industrial production of durables.

Reflecting the growing economy, total nonfarm employment, which is estimated to have risen by 3.2 million jobs in 1985, should increase by an additional 2.5 million jobs in 1986 (see Table 6). The strongest source of new jobs in

TABLE 6

EMPLOYMENT BY INDUSTRY
1984–1986
(millions)

	1984(a)	1985(e)	1986(f)	Percent Change (86 over 85)
Nonfarm, total	94.45	97.64	100.17	2.6%
Manufacturing	19.41	19.41	19.49	0.4
Nondurables	7.89	7.85	7.91	0.7
Food & Products	1.62	1.63	1.64	0.5
Tobacco	0.06	0.06	0.06	-5.7
Textiles	0.75	0.70	0.71	1.2
Apparel	1.20	1.16	1.13	-2.3
Paper & Products	0.68	0.68	0.69	1.4
Printing & Publishing	1.37	1.42	1.46	3.0
Chemicals & Products	1.05	1.04	1.05	0.8
Petroleum Products	0.19	0.18	0.18	-0.2
Rubber & Products	0.78	0.79	0.80	1.3
Leather & Products	0.19	0.18	0.17	-2.0
Durables	11.52	11.56	11.58	0.2
Lumber & Wood Products	0.71	0.70	0.73	3.6
Furniture & Fixtures	0.49	0.50	0.52	3.7
Stone, Clay & Glass	0.60	0.60	0.61	1.7
Primary Metals	0.86	0.81	0.81	0.1
Fabricated Metals	1.46	1.47	1.50	1.8
Nonelectrical Machinery	2.20	2.18	2.14	-1.9
Electrical Machinery	2.21	2.20	2.11	-4.3
Transportation Equipment	1.91	1.99	2.06	3.3
Instruments	0.71	0.72	0.73	1.4
Miscellaneous Manufactures	0.38	0.38	0.37	-0.8
Mining	0.97	0.97	0.92	-4.5
Contract Construction	4.34	4.65	4.86	4.4
Finance, Insurance & Real Estate	5.68	5.92	6.24	5.2
Transportation & Public Utilities	22.13	23.20	23.99	3.4
Wholesale & Retail Trade	20.76	21.91	22.79	4.0
Services	20.76	21.92	22.77	3.9

(a) Actual
(e) Estimate
(f) Forecase
Source: U.S. Chamber of Commerce, Forecast Center, using the DRI macro model.

1986 is anticipated to be the finance, insurance and real estate industry where 1986 employment is forecast to increase by 5.2 percent, twice as fast as total nonfarm employment. Wholesale and retail trade, and construction employment should rise by 4 percent and 4.4 percent, respectively, while manufacturing employment is projected to increase only slightly.

Of particular interest to our discussion of the impact of foreign competition on American industry is the performance of industry export and imports shown in Table 7. While the surge in imports during 1984 is undeniable, note that total exports for the industries listed in Table 7, also increased an impressive 11.2 percent following an almost 3 percent decline in 1983. The 1985 pattern of exports and imports for these industries reflects the general trend discussed in the previous article, exports are estimate to post a 2.4 percent decline while import growth subsides.

TABLE 7

EXPORTS AND IMPORTS BY INDUSTRY

(percent change)

	Exports			Imports		
Industry	**1983**	**1984**	**1985(a)**	**1983**	**1984**	**1985(a)**
Food & Products	-0.5%	0.4%	-12.5%	7.9%	16.4%	5.7%
Tobacco	-8.9	-0.6	6.9	14.9	8.3	-6.3
Textile Mill Products	-11.7	-1.2	-4.9	14.7	37.4	-1.8
Apparel	-12.4	-4.4	-5.7	17.6	39.7	8.3
Wood Furniture	-0.4	-5.4	-3.2	44.6	9.3	4.8
Paper & Products	-2.5	5.3	-9.2	6.3	30.9	3.0
Printing & Publishing	-2.6	4.2	-7.3	18.2	34.6	4.7
Chemicals & Products	-1.6	15.0	-1.8	23.1	28.2	5.3
Industrial Chemicals	-0.3	13.4	-2.9	19.5	25.2	7.2
Agricultural Chemicals	-16.6	19.2	0.0	19.4	25.0	-13.8
Crude Petroleum & Natural Gas	-35.4	-8.9	-1.6	-18.8	-1.7	-14.5
Rubber & Products	1.5	5.8	-5.4	75.0	44.5	5.4
Leather Tanning	-9.7	24.0	-2.4	-6.2	35.1	-5.4
Leather Footwear	-11.4	9.5	9.3	19.2	27.2	8.4
Construction Materials	-27.6	-14.2	15.8	42.3	75.8	55.4
Construction Machinery	-30.2	2.6	0.1	-16.3	70.7	31.9
Metalworking Machinery	-24.9	4.4	10.9	-28.2	50.8	24.4
Electronic Components	6.5	19.1	-11.8	19.8	50.6	3.1
Industrial Electronic Equipment	-24.3	-1.2	-7.7	18.6	38.4	13.3
Computers	16.0	28.0	12.7	na	na	na
Motor Vehicles	25.6	16.1	23.3	18.1	27.2	17.8
Instruments	4.2	2.6	20.4	7.1	36.8	15.7
TOTAL	-2.6	11.2	-2.4	3.0	20.7	4.0

(a) Data for 1985 is only available through the month of August. To calculate the rate of growth for 1985 the value of exports and imports for the first eight months of the year were compared to the same period in 1984.

na not available

Source: U.S. Department of Commerce.

In spite of the projected 1985 decline in total exports, four industries—construction materials, metalworking machinery, motor vehicles, and instruments—will actually enjoy substantial improvements in exports. Moreover, none of the industries listed is anticipated to experienced continued increases in the rate of growth of imports in 1985 compared to 1984. And, in fact, five industries (crude petroleum, tobacco, textiles, agricultural chemicals, and leather tanning), included among them those that have shown no improvement o a continued deterioration in industrial production during the recovery, will show actual declines in imports this year.

One case—leather footwear—merits particular attention because of the strident calls for import protection which have come from the industry. Although the import penetration ratio rose from 33 percent in 1981 to 51 percent last year, imports of leather shoes slowed significantly in 1985, rising by 8.4 percent compared to 27 percent in 1984. Moreover, exports of U.S. leather footwear rose by 9.5 percent in 1984 and are estimated to increase a further 9.3 percent this year. This industry is one of only five industries among the 23 listed which will actually experience an increase in exports during 1985.

Protectionism on the Rise

As the discussion of each particular industry that follows explains, American industries are meeting the twin challenges of technological change and foreign competition, and have gone a long way towards restructuring. In some cases, industry analysts have noted that further improvements are still called for. Nevertheless, there are now before Congress 300 pieces of legislation designed to increase protection and restrict market access to foreign producers.

Protectionism is not a solution. Its costs are tremendous, even assuming no retaliation by our trading partners. Increased protection would result in higher domestic prices and reduced consumer choice, lowering the standard of living of all Americans. The cost to American consumers and taxpayers are quite real. Some estimates have placed the cost of existing protectionist legislation at between $1,500 and $2,000 per year for the average American family. As a result of existing legislation, U.S. consumers paid an additional $4.5 billion for autos, $1 billion for footwear, $3 billion for sugar, and $18.4 billion for apparel and textiles in 1984.

Protectionism has other negative implications. Competitive pressures have forced U.S. industries to lower production costs and increase productivity, thus becoming more efficient. This would not have occurred behind protective barriers. Finally, closing our markets to foreign goods will boomerang against us even under the unlikely event that foreigners do not retaliate. As U.S. demand for imports declines, so would U.S. exports, since foreign economies, faced with a shrinking export market, would experience declines in economic activity and concomitant reductions in their demand for imports, including U.S. products.

INDUSTRY DETAIL

Construction

The construction sector is expected to continue to show fairly strong growth in 1986, albeit down some from the robust pace of the last two years. Residential investment is expected to rise by 6.5 percent next year while investment in nonresidential structures rises by only 2.6 percent as growth in office and commercial construction slows. Construction of retail facilities, because it is linked closely to homebuilding, will continue strong next year as new housing starts average 1.8 million units. Employment in the construction industry should increase by 4.4 percent in 1986. Despite the recent moderation in wage increases, construction has remained one of the highest paying industries as measured by average hourly earnings. Aided by belt-tightening measures taken last year, home builders' profits are expected to increase in 1986.

Real investment in private nonresidential construction is estimated to show a sharp 7.7 percent gain in 1985, rising faster than overall GNP. The sector continues to benefit from strong growth in office and commercial building which has risen sharply despite high vacancy rates. Tax incentives seem to be the major force behind the strength of this sector. However, it is primed for a significant adjustment since office space has been overbuilt in many regions of the country. As this constitutes a significant proportion of nonresidential construction, the downturn in office buildings will have a large impact on total construction. Further, solid gains in roadbuilding and military construction put an end to the 15 year downturn on public works projects.

Declining interest rates and inflation, rising availability of funds, and confidence in the economy are important determinants of the strength and mix of construction activity in 1986. Probably more important, however, will be the outcome of the tax reform debate. Most of the tax reform proposals, particularly the latest House Ways and Means staff version of the bill, would significantly raise the rental cost of capital on residential building and, by some estimates, result in a 7.3 percent decline in construction activity next year from what would have occurred under present law.

Lumber and Wood Products

Nineteen eighty-five was a mediocre year for the U.S. lumber and wood products industry as investment in residential construction, a major source of demand for the industry, slowed from a 12 percent rate of growth in 1984 to an estimated 2.1 percent this year. Industrial output of lumber and wood products is estimated to rise by 3.5 percent this year, half the growth rate achieved in 1984. Similarly, industry employment remained virtually flat in 1985. Industry profits are anticipated to fall substantially this year because of lower prices for wood products, weakness in pulp markets, and competition from Canadian imports. Although there has been no significant increase in the industry's overall import penetration ratio, a growing proportion of U.S. demand is being met by Canadian imports. As a consequence, a serious confrontation over Canada's growing raw timber exports to the U.S. appears to be developing. By the end of this year, Canadian raw timber will represent 31 percent of U.S. consumption, double its share of a decade ago.

The industry has been successful in meeting the foreign challenge. In response to growing pressures form imports, both the Louisiana-Pacific Corporation and the Georgia-Pacific Corporation have responded with new products. This year, these two companies will significantly increase their production of low-cost substitutes for plywood—a sizeable market in which the Canadians do not compete aggressively. In addition, several companies, including International Paper, have installed modern machinery to improve productivity and output.

Although trade deficits in the industry have been common, the size of the deficit has grown substantially since 1980. This makes it vital for the industry to increase exports, particularly to regions of the world where the demand for wood products is growing more rapidly than the supply of available timber. Unfortunately, this potential increase in exports of U.S. lumber is limited by government regulations which ban the export of timber from federal lands.

Despite the fact that output in the durable goods sector is anticipated to slow further next year, lumber production is expected to increase as residential investment rises by 6.5 percent. As lumber output rises by 5.3 percent in 1986, industry employment is expected to increase by 3,000 jobs, or 3.6 percent.

Stone, Clay and Glass

As with the lumber industry, the fortunes of the stone, clay, and glass industry are also tied to residential construction activity and interest rates. The positive outlook for both interest rates and housing during 1986 points to a 3.3 percent increase in this industry's production, compared to a projected 2.8 percent rise in 1985. Consequently, industry employment should rise by 1.7 percent in 1986. Profits at most companies have picked up this year and will continue to improve in 1986.

Output of cement and structural clay products, used extensively in residential construction, is projected to grow by 7 percent this year, significantly faster than the industry average. While competition from imports is not a major problem for the industry as a whole, import pressures have been felt in some areas. For instance, imports of clay from Canada and Mexico have become a problem for U.S. producers serving border areas.

Following several years of deteriorating performance, output of glass containers is expected to grow moderately next year. An industry-wide restructuring has left producers in a much stronger position as nearly one-fourth of all glass melting capacity was eliminated between 1980 and 1984. Output of glass and glass products is expected to rise by 2.5 percent in 1986, following a projected 0.4 percent decline this year.

Nonferrous Metals

After almost no growth in 1985, rising demand in the automotive and capital goods industries should contribute to a 6 percent increase in nonferrous metal production in 1986. The industry, which includes producers of nickel, lead, zinc, copper, and aluminum, is still beset with problems that made the recent recession the worst period in their history. These include worldwide overcapacity, tough foreign competition (as measured by an overall import penetration ratio of 16 percent), falling prices, and a strong dollar.

Some metals are also undergoing special problems of their own which are independent of general business conditions. A case in point is lead. Lead producers have lost a big share of their market as a result of the elimination of the product from paint and gasoline. Copper is facing similar market losses. For the past decade, the intensity of copper use has been declining due to substitution, miniaturization, and automotive downsizing. For copper producers, 1986 earnings will be lower than this year's. In spite of the increase in copper demand (global consumption of copper was up a healthy 8 percent last year), domestic producers were forced to cut back production because global supply of copper still exceeds demand and prices remain depressed. Zinc is enjoying increasing usage in the automotive and construction markets, which account for 70 percent of all the zinc produced. Galvanizing will continue to be the single largest application for zinc, although competition from other protective coatings will intensify.

Industry officials do not expect any major increase in the demand for aluminum next year. In an effort to redress the current oversupply, major producers such as the Aluminum Company of America (Alcoa) and the Reynolds Metals Company announced the closing of selected potlines for producing primary aluminum. Domestic producers are instead, concentrating their efforts on developing more sophisticated aluminum products for use in everything from aircraft fuselages to computer chips. Increasingly, they favor producing primary aluminum at facilities abroad, where advantages such as inexpensive power, proximity to raw materials, and growing markets exist.

Iron and Steel

Although domestic demand for steel products increased by 6 percent this year, production fell by 4.8 percent, largely as a result of increased import penetration, which accounted for 22 percent of the American market in 1984. The Administration's efforts to buy the industry some breathing space with voluntary quotas on imports has not yet produced results. So far, only one-third of the 76 steel-producing nations have agreed to limit their exports to the U.S. Moreover, worldwide steel capacity continues to exceed demand, and this imbalance has led to intense competition among nations for market shares and sharp price declines for steel products. Profitability has suffered, and in steel producing nations, unemployment, plant closings and painful restructuring are common.

Steel consumption in the U.S. depends primarily on demand for durable goods (both capital and consumer), such as construction machinery, autos, and appliances. The U.S. economy, however, is becoming increasingly less steel-intensive, and this diminishes the growth prospects for the industry. The energy crisis of the 1970s was one factor behind the long term decline in steel demand (the average American-made car today contains some 600 fewer pounds of steel than it did in 1976), as plastics and other products are substituted for steel. Another reason for the decline in steel demand is the steady shift away from goods produced by heavy industry towards electronics, services and information processing.

Individual companies will continue to compete fiercely for additional volume next year, especially in plate, large structural, and tubular product lines, where slack capacity is greatest. Improved efficiency and productivity are being realized through mergers, joint ventures, and the continued elimination of older facilities. The Inland Steel Company plans to pare expenses 20 percent by 1988 by reducing its excess productive capacity. Others, including the U.S. Steel Corporation, are considering joint ventures with foreign steel producers similar to the merger of the National Steel Corporation and Tokyo's Nippon Kokan. There is also an ongoing process of further cost-cutting, including employment reductions and the installation of more efficient high-tech equipment.

The steel industry's restructuring has extended to minimills. A rush of new entrants into this sector has resulted in overcapacity here as well, along with a sharp increase in competition. As the less efficient minimills are phased out, the stronger companies will continue to move into more profitable product lines such as special quality bar steel. Specialty steel producers (stainless, tools, and superalloys), which account for only 2 percent of the industry's volume, are also prospering because they do not face the large capital costs associated with blast furnaces and coke ovens.

As a consequence of the resurgence in economic growth forecast for next year, production should rise by 7.5 percent. However, because industry wages are over 50 percent higher than the national average, employment is

expected to remain flat as producers attempt to contain costs.

Nonelectrical Machinery

The nonelectrical machinery industry has not escaped problems of weak demand and foreign competition that have plagued a large number of the nation's industries. Although the import penetration ratio for the industry as a whole stands at only 14 percent, this overall average conceals major differences between categories within this sector. At one extreme, there is virtually no foreign competition in the market for some sectors such as oil field machinery (import penetration ratio of 1 percent), internal combustion engines (5 percent), and pumps (7 percent). At the other, some industry sectors, including farm machinery, machine tools, and textile machinery, face import penetration ratios of 17 percent, 31 percent, and 46 percent, respectively.

In an effort to meet the challenge from foreign suppliers, the industry has stepped up purchases of replacement equipment to modernize existing facilities. Other efforts to improve the industry's international competitiveness include offshore purchases, joint ventures, licensing arrangements, and increased spending on research and development. For example, Warner & Swasey has an agreement with Murata of Japan to build lathes and other turning machines to their specifications. Nine of the 12 largest machine tool builders have either recently merged or become part of a conglomerate. Attempts to improve productivity, efficiency and international competitiveness have resulted in a considerable increase in spending on R&D. Cincinnati Milacron Incorporated is expanding its R&D budget by 20 percent next year while Cross & Trecker Corporation will increase theirs' by over 50 percent.

Demand from the auto and defense industries for all types of machinery is expected to remain strong in 1986. In addition, the continued trend towards automation, particularly in the metalworking industry, will increase the demand for machine tools linked by computer control. Similarly, the demand for robots is expected to grow. GMFanuc Robotics Corporation, which enjoyed a fourfold sales increase in 1984, expects demand for robots to increase by over 30 percent this year. For the nation as a whole, industrial robot production is expected to grow by about 16 percent in 1986. Technology will remain a key factor as the industry continues to search for even more efficient applications of the computer to machines and industrial processes.

Although companies that specialize in the production of machines for the oil, construction, and farming sectors faced relatively low import penetration ratios in 1984, foreign competition in their areas is intensifying. Producers in Japan, Europe, and Brazil are expanding their product ranges and matching U.S. technology in a continued effort to enter the lucrative U.S. market. The impact has already been felt in the construction and farm equipment industries, where imports accounted for over 50 percent of the market's growth during the recovery.

This year, U.S. tractor retailers managed only a 0.4 percent increase in their unit sales and 44 percent of all tractors sold were smaller models which did not produce much profit. Despite the heavy price discounting, production of farm equipment in 1986 is expected to decline by 2 percent, following an estimated 17 percent drop in 1985. This dismal performance is directly related to the depressed state of the farm economy (see *American Agriculture at the Crossroads*, ECONOMIC OUTLOOK, October 1985). In response to growing import pressures, some farm equipment companies have made substantial cost reductions in all of their production and management operations, while others have either closed down plants temporarily or left the business altogether. International Harvestor Company has sold its troubled farm equipment unit to Tenneco. Deere & Company has closed down its combine-harvestor plant in Illinois, and Massey-Ferguson and Allis-Chalmers are mothballing plants for part of next winter.

For the nonelectrical machinery industry as a whole, production is forecast to rise by only 1.1 percent in 1986, following a 3.4 percent increase in 1985. Industry employment is expected to fall by 0.9 percent in 1985 and decline by 1.6 percent in 1986.

Computers

The continued strength of the nation's service industries is reflected in the fact that production of office and miscellaneous equipment will continue to outpace output in the nonelectrical equipment industry as a whole. In fact, output growth in this sector has increased by almost 13 percent since the beginning of the recovery, compared to an 8.6 percent rise for the nonelectrical equipment industry as a whole.

Although its prospects remain good, production of office equipment should rise by only about 5 percent this year, and by half this amount in 1986. This compares to a 21 percent increase in 1984, when the famous high-tech Silicon Valley area was a strong source of new jobs and new companies. However this year, signs of a slowdown have become increasingly evident. Electronics companies are now facing saturated markets and mushrooming foreign competition. The share of imports in total U.S. consumption of computers stood at 19 percent in 1984, and the rate of growth in U.S. exports of computers, while expected to post a 13 percent rise this year compared to a projected decline for overall U.S. exports, has suffered a significant slide from the 28 percent growth rate achieved in 1984. As a consequence, employment growth in the industry has declined. Apple Computer laid off a fifth of its work force in a recent reorganization; Hewlett

Packard, facing unusually weak orders, mothballed most of its facilities for one to three days a month this summer.

Although U.S. computer equipment companies have always operated globally, it is only recently that they have established overseas assembly operations, not only to serve foreign markets but also to produce goods for the U.S. market. Corona Data Systems, a company that makes desktop computers, has cut prices by 42 percent and moved its production facilities to South Korea and Japan. Sluggish capital spending, severe domestic and foreign competition, price discounting, and contracted product cycles have stifled the ambitions of many firms. Large dealer inventories now weigh heavily on prospects for 1986 sales.

While the sales growth of personal computers is abating, demand for computer work stations—extra powerful personal computers for engineers and other professionals—have increased. Computer makers are introducing new models of business computers, developing new marketing strategies, and reducing prices in hopes of increasing computer sales. The minicomputer market, on the other hand, has been squeezed by cutbacks in corporate computer buying and the spread of desktop office computers. Minicomputer makers are moving more into direct sales, traditionally the province of mainframe makers. While growth in microcomputers is also slowing, sales of higher-priced desktop models to businesses are stronger than sales of less expensive computers to consumers. The mainframe market, the largest industry segment, has been discovering third party sales routes. For instance, the Sperry Corporation indicates that it will soon stop manufacturing computers and stitch together a product line with other companies' components.

Electrical Machinery

Although production of electrical machinery has risen by 8.7 percent since the end of the recession, the industry's recovery seems to have come to an end. The near term outlook calls for actual declines in production and employment this year and next. Production is expected to fall by 3.1 percent in 1986 following an estimated decline of 2.8 percent this year. Consequently, industry employment is expected to decline to 2.1 million workers next year from 2.2 million in 1984.

Depressed sales in the semiconductor business have dragged down the electronic and electrical equipment industry. Electronic components, which rose at rates above the industry average during the recovery, is expected to experience larger than average declines in production this year and next. U.S. semiconductor shipments have slipped 28.7 percent from a year ago because of strong competition from lower priced Japanese products. Imports accounted for 39 percent of the U.S. market for semiconductors in 1984. Exports of Japanese semiconductors to the U.S. were almost $2 billion last year, while U.S. exports of semiconductors to Japan amounted to only $251 million. In an effort to solidify their presence in the U.S. market and guard against the possibility of protectionist polices, Japanese producers are setting up plants in this country, providing manufacturing services to U.S. companies and in some cases, taking an equity position in domestic firms. NEC Corporation, a Japanese electronics firm, is building a $25 million factory in Oregon for the production of fiber optics equipment. Korea's Gold Star Semiconductor Limited has ties with LSI Logic that give it access to LSI's design technology. And LSI Logic has also announced plans for a $100 million joint venture with the Kawaski Steel Corporation.

Demand in the electrical machinery industry is estimated to have declined 2.8 percent this year. Nineteen eighty-five has been characterized by spot shortages, longer lead times, and firm pricing patterns. Next year will bring further declines in production for the industry as output of household appliances, communication equipment, and T.V. and radios deteriorates. The T.V. and radio category, faced with an import penetration ratio of 59 percent, is expected to see production fall by 17 percent this year and 28 percent in 1986. Demand will shift somewhat in composition, with the computer, consumer and industrial sectors accounting for declining market shares, while demand from the defense sector contributes more to sustaining the industry.

Transportation Equipment

Following the energy crisis of 1979, the combination of a major shift in consumer demand, sluggish economic conditions, and intensified international competition plunged the transportation equipment sector into the worst crisis in its history. Three problems in particular—high U.S. labor costs, uncompetitive product quality, and shortcomings in management practices—placed domestic producers at a serious disadvantage in relation to their Japanese counterparts. In responding to these critical challenges, the industry has made some dramatic changes. It has drastically restructured its product lines, modernized factories, streamlined operations and, in doing so, has increased productivity, reduced costs, and improved the quality of its products.

The transportation equipment sector tends to be one of the most cyclical sectors in the U.S. economy, and as a result, it has benefited significantly from the economic upturn. Production is estimated to increase by 8.4 percent this year and 4.3 percent in 1986. Consequently, industry employment is expected to rise 3.3 percent in 1986. The motor vehicles and parts sector is likely to post below average growth rates, while the production of aircraft and railroad equipment will enjoy substantial increases. The aircraft industry is projected to increase production by almost 12 percent this year and 9.5 percent in 1986 as airlines expand capacity in efforts to compete for traffic volume.

Long-term industry growth will be largely determined by their degree of success in implementing new technologies designed to speed up production and cut costs. A majority of the industries comprising the transportation sector continue to face intense foreign competition. Car makers, in an effort to remain competitive with the Japanese, are adding new high-tech companies to help link design and engineering with production, and expanding financial services to facilitate marketing and sales of domestic cars. Domestic car sales are expected to remain close to the 8 million unit level this year and next. However, sales of imported cars are anticipated to be over 3 million units in 1985 and 1986, compared to 2.5 million units in 1984. Although U.S. car sales reached feverish levels in late summer of this year because of the subsidized interest rates on car loans, this sales promotion was expensive and hurt the earnings of the big three automakers as sales volume did not completely offset costs. Domestic automobile production should increase by 2 percent in 1986 compared to an estimated 9.8 percent this year. While U.S. imports of motor vehicles are estimated to have risen by almost 18 percent this year, exports rose by 23 percent.

The U.S. auto industry is undertaking new product and plant modernization programs of unprecedented scope to regain international competitiveness. In the tried and true spirit of "if you can't beat 'em, join 'em," they are also engaging in a host of mergers and joint ventures with foreign affiliates. As in the case of the nonelectrical machinery sector, foreign automakers are setting up production facilities in the U.S. Honda Motor Company, Mazda Motor Corporation, and Nissan Motor Corporation are among the Japanese automakers that have established production plants in the United States.

Similarly, airlines are making acquisitions in the areas of high-tech and car rental agencies. The railroad and trucking industries are utilizing each other's comparative advantages to lower costs through intermodal transportation. With emphasis currently placed on volume rather than profits, price slashing, incentives and discounts will abound; hence, these types of cost-cutting efforts will be crucial if steady growth is to be attained.

The continuing economic recovery and expected stability in gasoline prices are hopeful signs for the truck sector. The light truck market should continue to grow steadily for the next few years. Compact vans and pickups have retained their popularity because of improved fuel efficiency and their load carrying ability. Production in this sector is expected to rise by 9 percent in 1986, significantly above the average for the industry as a whole.

Instruments

The instruments industry, consisting principally of scientific and industrial measurement equipment and consumer products such as cameras, continues to be one of the more profitable manufacturing sectors. Instruments are of major importance in the manufacturing process as they reduce inefficiency and increase both the quantity and quality of production. Thus, as expenditures for plant and equipment increase, so does the demand for instruments. Another factor influencing the industry is expenditures on research and development, a large user of instrumentation. The trend toward integrating computer technology with instrumentation should continue next year, along with increases in private and government R&D spending. The expected continuation of the downtrend in the value of the U.S. dollar and its eventual impact on U.S. exports will be a plus for this industry for which foreign markets are also important sources of revenues. Industry exports are estimated to have risen an astonishing 20 percent this year in the face of falling overall U.S. exports. At the same time, the rate of increase in U.S. imports of instruments has slowed to 16 percent, half the increase experienced in 1984. Production in the industry is expected to increase by 2.3 percent next year and employment should rise by 1.4 percent.

Compared to the average increase for durable manufacturing as a whole, the improvements in production and employment anticipated for this year are quite respectable, even though the industry continues to face a host of negative factors. The still high value of the dollar relative to the currencies of our major trading partners, the sluggish economic recovery in other industrialized nations, the severe liquidity problems that have reduced capital expenditures and imports in developing countries, and the increasing competitiveness of Japanese and European manufacturers will all continue to limit market opportunities for U.S. instrument firms next year. Further, import penetration of the U.S. market stands at 14 percent, with Japan accounting for nearly one third of all imported instruments.

Food and Products

Changing consumer tastes, demographic shifts, and slow population growth signal significant shifts in the structure of the food and products industry over the next few years. Increasingly, mergers and acquisitions are changing the character of the American food industry. The cigarette maker, Philip Morris, recently agreed to buy General Foods for $5.8 billion; R.J. Reynolds paid $4.9 billion for Nabisco Brands; and Nestle acquired Carnation Company for $3 billion. Reflecting improving economic conditions and efficiencies accruing from consolidation and concentration, food industry profits will continue to increase in 1986, as will industrial production and employment, which are expected to rise by 4.3 percent and 0.5 percent, respectively.

Many major food processors claim that the strength of the dollar limited profits on export sales. Earnings on highly processed and specialty food generally rose, while meat processors' earnings were squeezed by low con-

sumer demand and low commodity prices. In today's deflationary environment, food processors no longer find it easy to maintain margins by raising prices.

Reflecting the continued decline in the value of the U.S. dollar, the trend in industry exports and imports is expected to reverse. Real exports of foods, feeds and beverages are expected to rise by 10.5 percent in 1986, following a 15 percent decline in 1985. Real imports, which are anticipated to post a 7.4 percent rise in 1985, should fall by almost 10 percent in 1986. Traditionally the U.S. has been a net exporter in this category, however, the surplus shrank from $4.8 billion in 1983 to $2.1 billion in 1984. During 1985 the surplus in this category of merchandise trade is expected to return to previous levels, reaching $4.3 billion.

Tobacco Products

Developments in the cigarette industry during 1985 were dismal. Unit sales dropped for the third year in a row, cigarette makers were forced to discount retail prices, the anti-smoking campaign continued unabated, and Congress required even tougher health warnings on cigarette packs. As a result, industry production should show a 4.3 percent decline this year. Nevertheless, profits increased substantially. Aided by higher cigarette prices and lower unit costs, Philip Morris, the largest cigarette producer, reported a 23 percent gain in profits in the third quarter.

Industry analysts expect companies to continue to benefit from improving productivity and lower raw material costs in 1986. Consequently, next year should see a small increase in production. However, increasing productivity in the industry means that higher levels of production can be achieved with fewer workers, and this is reflected in an expected 5.6 percent decline in 1986 industry employment. Also affecting employment is the fact that average earnings in the tobacco industry are significantly above the national average.

Following the sharp drop in cigarette demand after the 1983 tax and price increases, cigarette makers began development of new product and pricing strategies. Last year, major developments occurred in the lower priced cigarette segment as the demand for generic cigarettes increased. Generic cigarettes are offered at substantially reduced prices in plain packaging, with no advertising or promotion. In another marketing strategy, R.J. Reynolds began testing a 25-count pack of the largest selling U.S. cigarette brand, priced 25 cents above branded 20-count packs. In addition to price differentials, product innovations introduced by cigarette makers included longer cigarettes and products positioned to appeal to special market segments such as women and low-tar smokers.

Cigarettes are the major export of the U.S. tobacco industry. In an effort to offset weakening U.S. demand, several manufacturers have been exploring means of increasing sales overseas. The quantity and value of U.S. cigarette exports rose annually through 1981 and then began to decline because of the growing strength of the U.S. dollar and import restrictions abroad. However, a turnaround was evident this year as cigarette and cigar exports are estimated to have increased by 6.9 percent, following virtually no improvement in 1984. On the import side, while foreign suppliers, particularly of cigars and snuff, are making gains in the U.S. market, the industry has an import penetration ratio of only 0.5 percent and imports of tobacco are estimated to have declined by 6.3 percent this year.

Textile and Apparel Products

The economic fortunes of the U.S. textile industry are closely tied to those of apparel manufacturers. U.S. textile firms sell 45 percent of their output to apparel makers, and in some cases textile firms also have apparel operations. Since 1980, these industries have reduced employment by more than 110,000 jobs and have closed over 250 plants. Industry leader Burlington Industries Incorporated, whose activities span both the textile and apparel industries, has closed three apparel/fabric mills in the past 18 months.

Both industries have undergone massive restructuring in order to increase both foreign and domestic competitiveness. A number of domestic apparel firms are trying to enhance their competitive positions and reduce costs by making use of "sourcing"—engaging suppliers outside the firm to furnish some or all components at various stages of the manufacturing process. To further increase competitiveness, firms in the industry have increased automation and imposed better cost controls. Extensive use of computers has speeded up the manufacturing process and increased efficiency in both industries. For instance, Hartmarx Corporation, a domestic suit manufacturer, uses computers to find the most efficient way to mark patterns on cloth; also, instead of sewing linings inside suits, these are now chemically fused.

However, technological improvements can only go so far in the apparel business which remains highly labor-intensive. The industry can, however, compete by going after particular segments of the market. For instance, domestic manufacturers can compete well in the high-fashion apparel business which changes rapidly. By offering shorter lead times and better quality control than foreign suppliers, particularly those in the Far East, domestic firms can sharply improve their competitive edge. Many textile manufacturers are also placing increased emphasis on fabrics for specialized uses. For example, Avondale Mills of Alabama is hoping to reduce the amount of commodity-type textile (such as denim), that it sells to apparel makers from 75 percent of its business to 25 percent. Collins & Aikman Corporation attributes its dramatic increase in profits during 1985 to its strategy

of diversifying away from apparel, which now accounts for only 13 percent of its sales. J.P. Stevens & Company, the second largest textile company in the U.S., has announced plans to divest its apparel fabrics divisions and devote more of its resources to the company's home furnishings and industrial segments, where new applications in the use of textiles are creating substantial growth opportunities. The industry has also launched an $11 million "Buy American" advertising campaign for this year and next.

As a result of these efforts, textile production, which is estimated to show an almost 2 percent decline this year, should rise by 6.1 percent in 1986. This turnaround will contribute to an employment increase of 10,000 workers. Production in the apparel sector, which is estimated to have declined by almost 2 percent this year, should show a slight improvement in 1986. Employment in the apparel sector, however, is expected to continue to decline. Average hourly earnings in both industries are well below the national average.

Despite the progress already made, however, industry analysts claim that the industry's restructuring process still requires greater effort in the following areas: diversification of companies to achieve growth in areas where foreign competitors are weak; development of more specialized product lines and market segments; increased use of advanced technology; consolidation through mergers; and the development of stronger export markets.

Paper and Products

Encouraged by strong demand, high operating rates, and greatly improved earnings, paper producers in the U.S. are expected to increase their capital spending plans in 1986. Responding to tight markets, a number of companies announced plans for purchasing new machines as well as several new mills. Union Camp Corporation has spent $500 million on a mill in South Carolina that will increase its productive capacity by 30 percent next year. Aided by enhanced productivity, the benefits of cost-cutting measures initiated during the recession, and the inherent economies accruing from high operating rates, industry profits should increase further in 1986. Although growth in consumer demand for paper products will not contribute much to industry performance, brisk expansion in business demands will result in increases in production and employment during 1986 of 3.2 percent and 1.6 percent, respectively.

However, the increase in output will not be uniform among the industry's subsectors. Some segments of the industry, such as uncoated free sheet, linerboard, and market pulp, have experienced price weakness and competition from imports which are expected to continue in 1986. On the other hand, makers of coated paper and the uncoated free sheet used for computer printouts and copiers will continue to enjoy steady growth. Companies are concentrating their efforts in areas such as sanitary papers where prices are stabler and demand outruns supplies.

Problems plaguing the industry's future growth include inroads made by plastics into the domestic paper market, as witnessed by the growth of plastics in the grocery sack market. Other market losses may result from the increasing use of telecommunication devices that transmit information electronically. Nevertheless, the paper and board industry is in an excellent position to serve its huge domestic market and to compete aggressively in foreign markets.

Printing and Publishing

The U.S. printing and publishing industry is the world's largest of its kind, employing more than 1.4 million people, and accounting for 18 percent of U.S. nondurable manufacturing employment. It also represents the largest conglomeration of small businesses in the manufacturing sector. Growth of printing and publishing depends on a number of factors, but particularly on business confidence—evidenced through advertising expenditures—and gains in disposable personal income. Other factors include population growth, higher educational attainment, and increased personal consumption expenditures. In view of the favorable outlook for these demographic and economic factors, the industry is expected to grow at an average rate of about 5.4 percent in 1986 following a 4.9 percent rise in output in 1985. Sales of printed products should rise in 1986, with the increase being led by advertising in newspapers and magazines.

Advances in technology have affected virtually every phase of the industry's operations. Productivity increases are especially noticeable in the typesetting and pre-press operations of many newspaper and commercial printing firms. Changes in printing presses and increased automation in binding, handling, and mailing have increased production with minimal additions to payrolls. The challenges to the industry are many. The various electronic media are making increased inroads on the consumers' attention, yet the print media have many advantages over the electronic media, including portability, low cost, accessibility, and storage.

While international sales are not a principal concern to many printers and publishers, the U.S. is a net exporter of printed matter and the second largest exporter, behind West Germany. Shipments of U.S. printed matter destined primarily for Canada, England, Australia, and Japan totaled $1.3 billion in 1985, and should increase further next year.

Chemicals and Products

The chemical industry is expected to post its strongest increase in three years during 1986 as production rises by

6.4 percent, significantly above the average for nondurable manufacturing as a whole. The strength in the housing and automobile sectors, the industry's major markets, will buoy chemicals production, particularly in synthetic materials which are expected to enjoy a 10.3 percent increase in production next year.

Strength in the industry's key sectors (basic chemicals, synthetic materials, and drugs and medicines), will offset weakness in other categories, particularly agricultural chemicals. Sales of phenolics, used in manufacturing, plywood and other construction materials, is expected to grow by 5 percent next year. Shipments of epoxy resins, whose main markets are the automobile and metal can industries, were up 20 percent in 1985 and should increase by an additional 10 percent next year. Demand for synthetic fibers, however, continues to be weak due to shifts in consumer preferences away from nylons. Consumers will account for some of the strength expected next year as output of both pharmaceuticals and soaps and toiletries are expected to improve. Next year will continue to be bleak for U.S. producers of pesticides, fertilizers and other agricultural chemicals because of the depressed state of the farm economy. Production of this category of chemicals is expected to decline by 6.3 percent next year following an estimated 4.6 percent decline in 1985.

The recent weakening of the dollar against the major currencies should contribute to the industry's turnaround. The industry has suffered from foreign competition in domestic markets, where imports account for 21 percent of the market for basic chemicals, and international markets, where Kuwait, Saudi Arabia and Canada have all expanded their organic chemical capacity. Further, import penetration in autos, household appliances, consumer electronics, computers and apparel, has reduced these industries' demand for chemicals. To improve their ability to compete, the chemicals industry plans to increase capital spending in 1986 by 10.7 percent in order to reduce operating costs and increase productivity.

Petroleum Products

The petroleum products industry is also expected to enjoy a turnaround next year. After an estimated decline of nearly one percent in 1985, production should increase by almost 3 percent in 1986. Although this represents an improvement for the industry, its performance still remains significantly below the 4.9 percent increase in production forecast for nondurable manufacturing as a whole.

Companies continue to restructure and streamline operations to adjust to long-term changes in the marketplace. Energy conservation is probably the single most important factor affecting the financial fortunes of oil companies today. Moreover, imports are hurting domestic refiners who are struggling to get their production runs up to profitable levels. Mergers and joint ventures will continue to occur within the industry as firms realize it is cheaper to increase crude-oil reserves via acquisitions than to engage in costly exploration and drilling. The recent proposed merger of U.S. Steel Corporation (which already owns Marathon Oil), and Texas Oil & Gas Corporation is the latest consolidation in the natural gas business.

Petroleum consumption in 1985 is estimated to rise by nearly 5 percent, the first increase in six years, with the largest gains in demand occurring in the distillate fuel oil and jet fuel categories. Consumption of natural gas in 1986 by the industrial sector and electric utilities is expected to increased more rapidly than consumption in the residential and other commercial sectors. Demand for natural gas is expected to rise by 3 percent next year but the supply surplus will continue to hang over the market. The electric utility industry will also see modest growth next year. In 1985, the industry is estimated to have sold 5 percent more electricity than it did last year.

Rubber Products

Propelled by the strong demand generated by such markets as housing, appliances, and autos, the rubber industry should see relatively strong growth next year. Production is forecast to increase by 6.1 percent in 1986 as plastics outperform other segments of the industry. Overall employment in the industry should increase by 1.3 percent next year. Both rubber and plastic products are sensitive to the cost and availability of petrochemical raw materials; hence, as a result of stable petroleum and natural gas costs, plastic and rubber prices in the last few years have remained relatively unchanged. There continues to be an ongoing, long-term shift away from rubber towards plastic products because they are less expensive to process. Consequently, production of plastic products is expected to provide the bulk of the industry's strength, rising by 9.9 percent next year, while the output of tires increases by only 4 percent and the output of other rubber products falls by almost 9 percent.

Over 70 percent of the synthetic rubber produced is consumed in the manufacture of tires and other rubber products for motor vehicles. The worldwide shift to radial car tires in the early 1970s gave a new lease to the life of the natural rubber industry since radial tires require more natural rubber in their blend than do cross-ply tires. But, since radial tires last longer, the demand for replacement tires will continue to decline. In addition, radial tire imports from Korea and other Asian countries continue to soar, accounting for over 20 percent of the market. The trucking industry has increased its demand for longer lasting tires with less rolling resistance in order to cut operating costs. Demographic changes, consumer attitudes, and changes in tire and transportation technology will all shape the future of the tire industry.

Although earnings fell this year because of weak demand for replacement tires, next year should see an in-

crease as the automobile industry raises its demand for tires, hoses, belts, and other auto parts. At Goodyear Tire & Rubber, the industry's largest company, profits fell 27 percent in 1985 because of lower demand for private-brand replacement tires, price-cutting by producers jockeying for market share, a strike at a Canadian tire plant, a glut of imported tires, and the strong dollar, which cut dollar earnings of foreign operations. Apart from cutbacks in bias tires, companies continue to reshape their businesses in order to improve productivity, reduce costs, and compete more effectively abroad. B.F. Goodrich & Company has begun concentrating on making replacement tires, while Firestone Tire & Rubber Company has closed its manufacturing plants and become a retailer, concentrating on marketing strategies for foreign markets. Manufacturers are also focusing on producing specialty tires, such as aircraft tires and agricultural equipment tire products, where imports as a share of the domestic market are negligible.

Leather and Products

Although the U.S. is one of the principal suppliers of leather to world markets, the proximity to raw materials has not helped the domestic fabrication industry in its struggles with foreign competition. Imports account for 47 percent of domestic consumption of leather goods. With the exception of leather tanning, all sectors of the industry are labor-intensive, and lower wage rates in many developing countries give foreign suppliers a substantial cost advantage. The developing countries' 1985 share of total U.S. imports of leather and leather products reached 73 percent.

The leather footwear industry, which labors under a 51 percent import penetration ratio, is composed primarily of privately held, family businesses. Despite such intensive import pressures, U.S. exports of leather footwear have enjoyed significant increases during the past two years even while total U.S. exports were falling. At the same time, the rate of growth in imports of this category of leather products has slowed substantially. The Footwear Industries of America, the industry's trade organization, has been lobbying heavily for import quotas which the Administration has rejected. Without drastic changes in the industry's competitiveness, import penetration ratios will increase and the industry's long-term prospects will remain dismal. The disparity in labor costs between many foreign suppliers and U.S. producers could be narrowed significantly with the application of new technology, especially robotics, but the large capital investment required is beyond the reach of many of the small and medium-sized producers.

Overall production is expected to decline by 7.5 percent next year following a 6.1 percent decline in 1984. Reflecting the industry's shrinkage, total employment should decline by 2 percent in 1986.

TRENDS IN COMMERCE NOTES ON TABLE II NOVEMBER, 1985

by
Martin Lefkowitz

Gross National Product (GNP)–The Department of Commerce's preliminary estimate of the nation's economic performance as measured by Gross National Product–the value of the output of goods and services–shows that the inflation-adjusted growth rate for the third quarter was 3.3 percent. This was an improvement from the second quarter when the economy grew at a revised 1.9 percent annual rate. Personal consumption expenditures, residential investment and government purchases accounted for most of the third quarter increase. Although inventory investment has declined, sales have increased and businesses should start to rebuild inventories in the fourth quarter to accommodate the higher sales levels. Net exports were at about the same level as the second quarter, while imports declined slightly.

The Services Sector–Employment in service sector establishments rose by 0.4 percent in October and is now 4 percent above its year-ago level. This compares with a 0.5 percent increase in employment in the goods producing sector over the last year.

In the last two months we have seen a reversal in the trend toward rising purchases of consumer services relative to consumer goods because of the recent increase in automobile sales. Consumer purchases of services now comprise 50.4 percent of personal consumption expenditures, compared to 50.1 percent in September 1984. Major domestic airlines reported that revenue passenger miles flown, that is, the number of passengers multiplied by the miles flown by each passenger, hit a record 30.9 billion, an increase of 11.9 percent from last year. The previous record was set in July when 30 billion revenue passenger miles were flown. For the first eight months of 1985, major U.S. carriers reported a 13 percent increase in revenue passenger miles flown from the same period in 1984.

Money Supply–The nation's money supply–as measured by M-1, currency in circulation plus demand deposits–increased by 0.9 percent from August to September, compared to a 1.7 percent increase from July to August. The money supply has been growing at a 13.8 percent seasonally adjusted annual rate in the latest three-month period.

Employment–The civilian unemployment rate remained unchanged at 7.1 percent in October for the second consecutive month. The stickiness in the unemployment

rate over the past year should not be interpreted as a sign of economic weakness but is indicative of significant and rapid growth in the labor force. The percentage of the adult population at work in October reached a record high and employment gains continued. Civilian employment – as measured by the monthly survey of households – increased by 323,000 persons (seasonally adjusted), following an increase of 372,000 from August to September. The number of nonagricultural payroll jobs – as measured by the monthly survey of business establishments – increased by 414,000 in October, reflecting an across the board gain, including an increase in manufacturing jobs.

Prices – The Consumer Price Index for all urban consumers (CPI-U) increased a meager 0.2 percent in September for the fifth consecutive month. The slowdown in the rate of growth of consumer prices that has occurred in the last five months reflects lower prices for used cars and energy, while food prices, which had declined in the previous four months, increased in September. The government continues to be a major contributor to fueling inflation as the two components of the CPI that are dominated by government programs, medical care and educational expenditures, increased more than twice as fast as the total index over the last twelve months. During the first 9 months of the year, consumer prices rose at an annual rate of 3.2 percent.

Wholesale prices of finished goods rose 0.9 percent in October, following a 0.6 percent decrease in September, and were up 1.1 percent from their year-ago level. The October increase in finished goods prices was the largest rise in over a year. From October 1984 to October 1985, the finished goods index increased by 1.1 percent. This increase is about one-third the 3.2 percent increase in consumer prices during the last twelve months, reflecting the fact that the Producer Price Index measures only the goods sector of the economy while the Consumer Price Index measures both goods and services.

Crude prices increased 3.1 percent in October following 10 consecutive months of declines. Crude food and feedstuff prices increased 6.3 percent in October, but were 8.3 percent below their level a year ago, continuing to cause problems for American farmers. Prices of crude energy materials are 5.6 percent below their year-ago levels and nonfood materials, not including energy, are now 4.2 percent below their levels of last year.

Housing Starts – Privately owned housing units were started at a seasonally adjusted annual rate of 1,543,000 in September, 9 percent below the August level. Building permits, an indicator of future activity in the home building industry, increased one percent in September and were 18 percent above year-ago levels, indicating that housing starts should pick up over the next few months. However, recent trends in new home sales indicate that they have now declined 8 percent from their peak in July.

Industrial Production – Industrial production was down 0.1 percent in September, following a 0.6 percent gain in August. The decline in output was centered in the consumer goods and business equipment areas, while there were output increases in the defense and space equipment, and construction supplies sectors. Consumer goods output was down 0.3 percent as a result of declines in auto output and home goods, including appliances, while consumer nondurable goods production remained unchanged for the month.

The capacity utilization rate in manufacturing fell 0.3 percentage points in September to 80.0 percent. Motor vehicles and parts, electrical machinery, and nonelectrical machinery all showed the largest declines in utilization rates. Manufacturing capacity was 1.8 percentage points below the peak level attained in 1984, with most of the decline attributable to the durable goods sector. In the nondurable sector, the operating rate at 83.1 percent, was unchanged for the month. Manufacturing capacity rose 0.8 percent in the third quarter of 1985, a 2.4 percent increase from a year ago.

Productivity – Nonfarm business productivity increased at a 1.2 percent annual rate in the third quarter, similar to the second quarter gain. In the third quarter, output in the nonfarm business sector grew at a 3.2 percent annual rate as a result of an increase of 2.0 percent in the number of hours worked and a 1.2 percent increase in productivity. Manufacturing productivity in the third quarter grew at a 2.4 percent annual rate while output rose at a 2.3 percent annual rate, reducing the number of hours worked by 0.1 percent

Interest Rates – At 9.5 percent, the prime interest rate is 3.0 percentage points below the rate at this time last year. Three- and six-month Treasury bill rates in the last week of October were up 25 and 32 percentage points, respectively, from their levels at the end of September. The longer term Treasury securities were 24 percentage points lower the last week of October than the last week of September.

Business Failures and Formations – Dun and Bradstreet's Index of Business Failures indicates that business failures in mid-October declined slightly from their previous levels. Business failures in the first nine months of 1985 increased by 8.2 percent from their year-ago levels, and total business closings were up about 13.8 percent.

Dun and Bradstreet reported that there were 59,655 new business corporations formed in May, an increase of ten percent from the previous year. In the first five months of 1985, 281,533 new corporations were formed, an increase of 4.3 percent from last year. Twenty states had increases of 10 percent or more, and all of the nine census regions reported an increase in new business cor-

TABLE II
TRENDS IN COMMERCE

	Current Period		Previous Period	Year Ago	Percent Change From Previous Period	Percent Change From Year Ago
Population (Millions) [a]	Aug/85	239.0	238.1	236.9	0.4	0.9
Gross National Product ($B)	III/85	3,916.1	3,853.1	3,694.6	1.6	6.0
Gross National Product (72$B)	III/85	1,684.8	1,671.3	1,645.2	0.8	2.4
Money Supply (M1) ($B)	Sep/85	611.6	605.9	551.5	0.9	10.9
PEOPLE AND THEIR MONEY						
Personal Consumption Expenditures ($B)	Sep/85	2,566.6	2,536.1	2,383.7	1.2	7.7
Personal Consumption Expenditures (72$B)	Aug/85	1,114.8	1,103.1	1,059.5	1.1	5.2
Disposable Personal Income ($B)	Sep/85	2,717.3	2,713.0	2,624.9	0.2	3.5
Disposable Personal Income (72$)	Aug/85	1,192.6	1,191.3	1,174.7	0.1	1.5
Personal Savings Rate (%)	Oct/85	1.9	2.9	6.1	−1.0[b]	−4.2[b]
Civilian Employment (millions)	Oct/85	107.9	107.5	105.6	0.4	2.2
Civilian Unemployment Rate (%)	Oct/85	7.1	7.1	7.3	0.0[b]	−0.3[b]
Average Hourly Earnings	Oct/85	$8.64	$8.64	$8.38	0.0	3.1
Consumer Price Index (All Urban, 67 = 100) [a]	Sep/85	324.5	323.5	314.5	0.2	3.2
Purchasing Power of the Dollar (67 = $1.00) [a]	Sep/85	0.308	0.309	0.318	−0.324	−3.145
Prime Interest Rate (%) November 2, 1985		9.5	9.5	12.5	0.0[b]	3.0[b]
Retail Sales ($)	Oct/85	115.5	119.4	109.0	−3.3	6.0
SERVICES SECTOR						
Employment in Services (Millions)	Oct/85	73.1	73.0	70.4	0.3	4.0
Consumer Purchases of Service ($B)	Sep/85	1,292.9	1,285.1	1,193.8	0.6	8.3
Consumer Purchases of Service (72$B)	Aug/85	511.9	511.1	493.6	0.2	3.7
Revenue Passenger Mileage Flown Major Airlines (Billions) [a]	Aug/85	30.9	30.0	27.6	5.3	14.7
BUSINESS PROFITS AND OUTPUT						
Nonfinancial Corporate Profits ($B) [a]						
Before Tax [a]	II/85	221.0	222.3	246.0	−0.6	−10.2
After Tax [a]	II/85	137.4	137.0	150.2	0.3	−8.5
Industrial Production (67 = 100)	Sep/85	124.7	124.8	123.3	−0.1	1.1
Capacity Utilization Rate (Mfg.) (%)	Sep/85	80.0	80.3	82.0	−0.3[b]	−2.0[b]
New Housing Starts (thou. units)	Sep/85	1,583.0	1,746.0	1,669.0	−9.3	−5.2
Net Business Formation (67 = 100) [a]	Aug/85	119.0	118.0	119.1	0.8	−0.1
New Business Incorporations (Thousands)	May/85	56.3	55.9	51.2	0.7	10.0
BUSINESS COSTS						
Unit Labor Costs (nonfarm) (77 = 100)	III/85	165.2	164.1	159.5	0.7	3.6
Unit Nonlabor Costs (nonfarm) (77 = 100)	III/85	163.7	161.3	158.0	1.2	3.6
Producer Price Indices (67 = 100)						
Crude Materials	Oct/85	298.0	292.4	319.6	3.1	−6.8
Intermediate Goods	Oct/85	317.8	317.9	320.1	0.1	−0.7
Finished Goods	Oct/85	294.8	290.2	291.5	0.9	1.1
FEDERAL SPENDING AND DEBT						
Federal Spending Index (67 = 100)	Sep/85	594.7	590.4	521.0	0.7	14.1
Federal Government Debt Outstanding ($B) [a]	Jun/85	1,779.0	1,758.3	1,517.2	1.2	17.3
INTERNATIONAL TRADE						
Exports of Goods & Services ($B)	III/85	347.6	347.7	368.6	0.0	−5.7
Imports of Goods & Services ($B)	III/85	436.7	441.6	459.3	−1.1	−4.9
Balance on Goods & Services ($B)	III/85	89.2	94.0	90.6	−5.1	−1.5
WHAT'S AHEAD?						
Index of Leading Indicators (67 = 100) [a]	Sep/85	170.3	170.2	165.7	0.1	2.8

NOTES: All data seasonally adjusted unless otherwise noted
[a] Not seasonally adjusted
[b] Percentage point difference

porations formed in May of 1985 compared to 1984. The East North Central region reported the largest gain in incorporations in May, with an 18.7 percent increase. The South Atlantic states reporting the largest increases in new corporations during the first five months of 1985 were South Carolina, Louisiana and Maryland.

Federal Spending—The "Federal Spending Index," a U.S. Chamber devised measure of the monthly change in federal expenditures, increased 14.1 percent in September from its year-ago level, after adjusting for the fact that two Social Security payments were made in August 1984 because of the timing of the Labor Day weekend. This is more than four times the 3.2 percent annual rate of increase in consumer prices over the last twelve months. In fiscal year 1985, federal expenditures increased by 11.3 percent, nearly four times as fast as prices, indicating a real increase in federal spending of about eight percent from the year-ago level. Federal receipts, during the same period, have risen by 10.1 percent as a result of double-digit increases in personal income taxes and social insurance taxes. The data on tax receipts indicates that federal tax revenues continue to increase at a faster rate than increases in income. The faster growth of taxes and federal outlays than prices indicates that we must concentrate on expenditure reduction in order to bring the federal deficit under control.

Personal Savings—In September, for the first time since 1959, the personal savings rate hit an all time low of 1.9 percent of after-tax income. The decline in savings appears to be a result of increased consumer expenditures that occurred in the summer months. Personal consumption spending rose 1.2 percent in September, following a one percent increase in August.

Retail Sales—Retail sales declined 3.3 percent in October following increases of 2.1 percent in September, and a 2.2 percent increase in August. The October decline was expected as consumers paused following a two month spending binge. The September increase was mainly due to a jump in auto sales as dealers offered larger than usual end of the year discounts combined with favorable financial terms. The most encouraging factor was that October retail sales were ahead 6.0 percent from last year's level and for the last three months, retail sales are up 2.6 percent, a better than 10 percent annual rate. This indicates a continued upward trend in retail sales.

Trade Deficit—The trade deficit declined slightly in the third quarter following very large increases in the first two quarters of 1985. On a goods and services basis, the trade deficit declined to $89 billion in the third quarter, following an increase to $94 billion in the second quarter. The decline in the trade deficit was due to a decrease in imports while exports remained unchanged. On a monthly basis, the merchandise trade deficit jumped to a new record, over $15.5 billion from just under $10 billion in August. The September increase in the merchandise trade deficit is attributable to a 24 percent increase in imports of manufactured goods. In September, nearly one-half of the nonpetroleum related trade deficit was with Japan.

What's Ahead—The composite index of leading indicators, designed to predict future movements in aggregate economic activity, increased 0.1 percent in September, with 5 of the 11 available indicators up, 5 were down and one was unchanged. This follows a revised 0.9 percent increase for August that was previously reported as a 0.7 percent gain. September represents the fifth consecutive month in which the leading indicators have increased.

MAJOR EXPORT COUNTRIES TO THE U.S.
($ billions)

	1983	1984	% Change 1984/83
Canada	32.1	66.5	+28
Japan	41.1	57.1	+39
Mexico	16.8	18.0	+ 7
West Germany	12.7	16.9	+34
United Kingdom	12.5	14.5	+16
Taiwan	11.2	14.8	+32
South Korea	7.1	9.4	+31
Hong Kong	6.4	8.3	+29
France	6.0	8.1	+35
Italy	5.5	7.9	+45
Indonesia	5.3	5.5	+ 3
Brazil	4.9	7.6	+54
Venezuela	4.9	6.5	+32
Nigeria	3.7	2.5	−33
Saudi Arabia	3.6	3.7	+ 3

Source: U.S. Department of Commerce

MAJOR IMPORT COUNTRIES FROM THE U.S.
($ billions)

	1983	1984	% Change 1984/83
Canada	38.2	46.5	+22
Japan	21.9	23.6	+ 8
United Kingdom	10.6	12.2	+15
Mexico	9.0	11.9	+32
West Germany	8.7	9.1	+ 4
Saudi Arabia	7.9	5.6	−30
Netherlands	7.8	7.6	− 3
France	5.9	6.0	+ 1
South Korea	5.9	5.9	+ 1
Belgium/Luxembourg	5.0	5.5	+ 9
Taiwan	4.6	5.0	+ 7
Australia	3.9	4.7	+21
Italy	3.9	4.4	+12
Venezuela	2.8	3.4	+20

Source: U.S. Department of Commerce

EXPORT RELATED JOBS IN MANUFACTURING DECLINE IN 1983

There were 4.5 million jobs associated with the export of manufactured goods in the U.S. in 1983, according to the latest data by the Department of Commerce. These export related jobs constituted 4.3 percent of the nation's total work force in 1983, compared to 4.7 percent in 1981. Within the manufacturing sector, exports accounted for 11 percent of the total manufacturing employment in 1983, including 1.1 million jobs in manufacturing plants producing the finished goods for direct export, and an additional 0.9 million jobs in manufacturing plants and administrative offices furnishing material inputs and services to the exporting plants. In addition, there were 2.5 million employees in nonmanufacturing industries that supply materials and services supporting manufactured exports. This included employment in trade, business, transportation, communication and utilities, agriculture, mining, and other industries.

DEPARTMENT OF COMMERCE REPORTS INCREASE IN PERSONAL INCOME

The Department of Commerce's Bureau of Economic Analysis recently reported that personal income for the nation as a whole rose 1.0 percent in the second quarter. Of the forty-two states that showed an increase in personal income, the largest percentage increase in nonfarm income were in: Wyoming, 3.1 percent; Indiana, 2.0 percent; Kansas, 1.8 percent; Arizona, 1.7 percent; and Florida, 1.6 percent. Most of these states showed large increases in wage and salary disbursements (payrolls) in both durables and nondurables manufacturing and private service-type industries. Declines in nonfarm personal income occurred in Montana, Delaware and Alaska. Those states showing a decline in personal income as a result of depressed farm activity include North Dakota, Arkansas, Mississippi, Louisiana, and Idaho

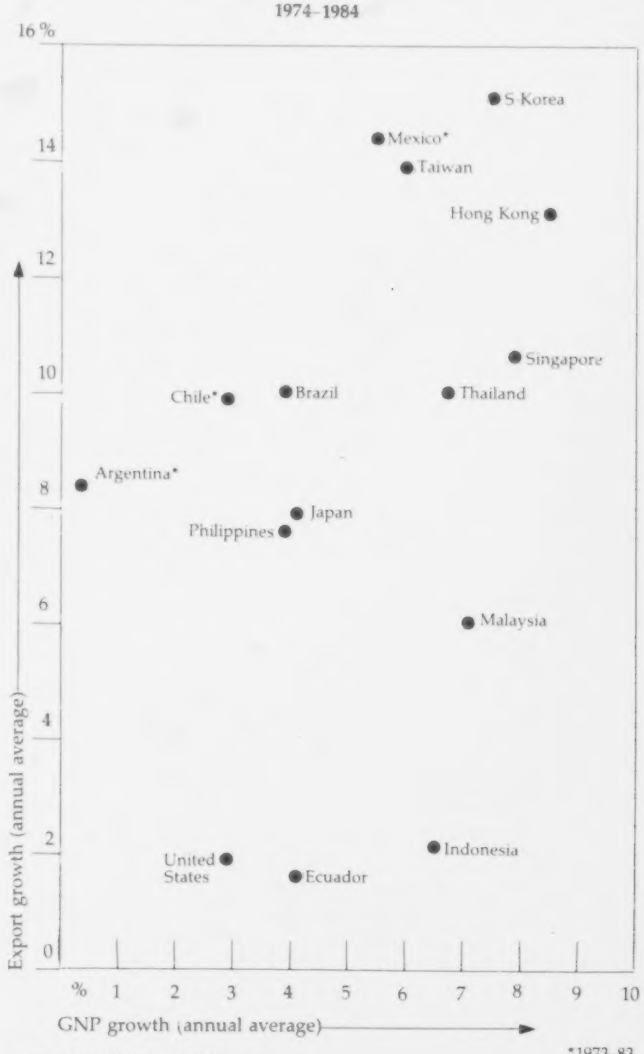
The following is a summary of the changes in nonfarm personal income in the second quarter for each of the eight BEA regions:

Region	Percent Increase in Nonfarm Personal Income
New England	1.1%
Mideast	0.9
Great Lakes	1.2
Plains	0.9
Southeast	1.1
Southwest	1.3
Rocky Mountain	1.2
Far West	1.1

EXPORT GROWTH AND DEVELOPMENT

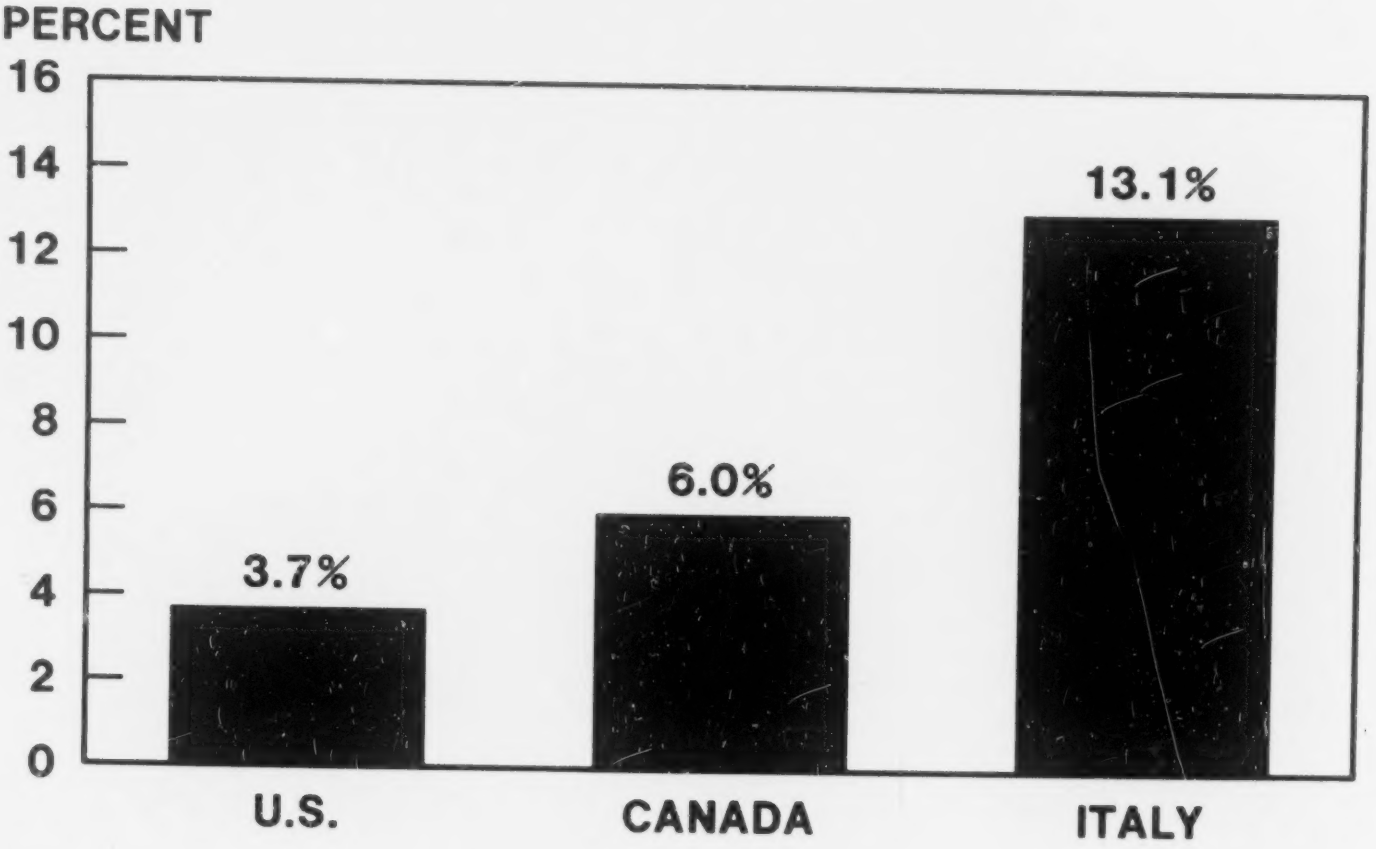
The discrepancy between the economic performance of the East Asian and Latin American developing countries can be explained by the role played by exports. There appears to be a strong relationship between export growth and real GNP: the faster the rise in exports the faster the growth in GNP. Much of the economic expansion of the East Asian countries has been founded on rapidly growing exports. For instance, South Korea's export volume rose by 15 percent a year between 1974 and 1984. With the exception of Mexico, where oil exports play a predominant role, the Latin American developing countries have been less successful in expanding exports and thus have experienced slower overall GNP growth.

GROWTH IN EXPORT VOLUME AND GNP
1974–1984



Sources: IMF Country Sources
The Economist, November 15, 1985

GOVERNMENT DEFICIT AS A PERCENT OF GNP



U.S. DOLLAR VS. SELECTED CURRENCIES
(INDEX, 85:1 = 1.0)